

Patent Abstracts of Japan

PUBLICATION NUMBER : 03244777
PUBLICATION DATE : 31-10-91

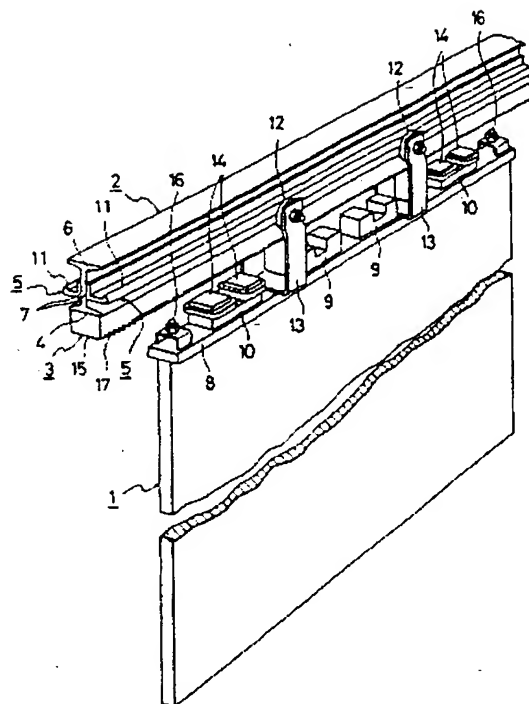
APPLICATION DATE : 21-02-90
APPLICATION NUMBER : 02038272

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INT.CL. : E05F 15/18 H02K 41/02

TITLE : MAGNETIC LEVITATION
SELF-RUNNING TYPE SUSPENSION
SLIDING DOOR



ABSTRACT : PURPOSE: To prevent the generation of noise and raising dust by attracting a door body to a yoke rail by means of electromagnets located to the two ends of the upper part of the door body to cause magnetic levitation thereof, and energizing a linear motor coil for travelling movement.

CONSTITUTION: A door body 1 is attracted to a yoke rail 3, mounted on a support lever 2, by means of electromagnets 10 and 10 located to the two ends of the upper part thereof to cause magnetic levitation thereof. In this case, control is effected by means of a gap sensor 16 so that a separating distance between the electromagnets 10 and 10 and the yoke rail 3 is always kept at a specified value. A linear motor coil 17 is charged with a control current for travelling movement, and the door body 1 is travelled for movement in a given direction. This constitution suppresses an energizing current to a low value and reduces capacity and a quantity of a control switch.

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